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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/714,847

11/18/2003

Richard Ormson

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02/27/2006

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EXAMINER

BALAOING, ARIEL A

ART UNIT

PAPER NUMBER

2683

DATE MAILED: 02/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/714,847	ORMSON ET AL.	
	Examiner	Art Unit	
	Ariel Balaoing	2683	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 November 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 14 and 15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 14 and 15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11/18/2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Acknowledgment is made of applicant's claim for foreign priority based on an application filed in United Kingdom on 11/19/2002. It is noted, however, that applicant has not filed a certified copy of the application as required by 35 U.S.C. 119(b).

Response to Arguments

2. Applicant's arguments filed 11/23/2005 have been fully considered but they are not persuasive.

Regarding claim 1, the applicant argues "[that] Otting teaches a method for initiating an alternate technology scan but not a method for performing the scan" (see page 9 of the remarks); the examiner respectfully disagrees. While OTTING does disclose the process of initiating an alternate technology scan, OTTING also teaches a method for the scan (see Figures 3 and 4; col. 4, lines 17-38; col. 5 line 50-col. 6, line 32). Once a scan is initiated, suitability of available radio networks is accessed.

Furthermore, in response to applicant's argument that "Since Otting does not teach or suggest at least a method whereby the time necessary to complete a technology scan and acquire a communications network is reduced, applicants submit that Otting does not teach or suggest each and every element of claim 1." (see page 9 of the remarks); a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to

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patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

3. Regarding claims 3 and 8, the applicant argues “[that] neither Otting nor Nakano teach switching to an alternate technology based on the results of signal averaging.” (see page 10 of the remarks). In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). In this case, OTTING teaches switching to an alternate technology based on suitability of detected radio technologies (col. 4, lines 16-59; mobile performs alternate technology scan and registers and camps with new network if deemed necessary), while Nakano teaches determination of cell suitability by measuring signal strength averaged over a predetermined time period (col. 3, line 57-col. 4, line 13). The rejections of 3 and 8 are made with respect to the combination of these two disclosed features.

4. Furthermore, in response to applicant's argument that “since the teachings address unrelated problems, the references themselves provide no motivation to combine” (see page 10 of the remarks), the test for obviousness is not whether the features of a secondary reference may be bodily incorporated into the structure of the primary reference; nor is it that the claimed invention must be expressly suggested in any one or all of the references. Rather, the test is what the combined teachings of the

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references would have suggested to those of ordinary skill in the art. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981).

However, after speaking with a primary, it was suggested that incorporation of dependent claims 3 **and** 8 into independent claim 1, would place claim 1 into condition of allowability.

Regarding claims 4 and 5, the applicant argues “[that] Otting does not teach or suggest at least a method whereby a suitable cell is chosen based on measurement of a signal characteristic prior to a final measurement” (see page 11 of the remarks); the examiner respectfully disagrees. As can be seen from Figure 3 and Figure 4, alternate technology scan is continuous provided that this is allowed by the network, therefore cell suitability is chosen before final measurement occurs (i.e. measurements are continuously repeated). Also, from col. 5, line 50-col. 6, line 9, an example is provided on a method for the technology scan, with the characteristics of differing GSM network types is determined.

In response to applicant's argument that “Dillinger does not teach or suggest at least reducing the time required to choose a new cell by determining if an appropriate cell exists prior to a making a final measurement” (see page 11 of the remarks), a recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim.

Regarding claims 6 and 7, the applicant argues "Otting does not involve the process of determining a suitable cell on a cellular communications network" (see page 11 and 12 of the remarks); the examiner respectfully disagrees. As can be seen on col. 4, lines 39-59, Otting teaches an alternate technology scan, and if an alternate network is suitable, the mobile device registers and camps on the new cell. Otting discloses on Col. 5, lines 6-37 that *"each cell includes paging and voice communication and a radio coverage area established by fixed site base stations"*.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 2, 9, 10, 11, 14, and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by OTTING et al (US 6,477,372 B1).

Regarding claim 1, OTTING discloses a method of network acquisition for a cellular radio communications device arranged to operate on a plurality of radio technologies (abstract; column 4:lines 17-59) and comprising determining the most suitable cell based on a characteristic of signals received from a plurality of cells (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), the signals from each cell being provided over a band of frequencies (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), and the method being arranged for taking a series of

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measurements of the said characteristic for one radio technology and for each frequency (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), wherein prior to the final measurement in the said series, the said characteristic of at least one measured signal for each frequency is compared with a predetermined value and if the comparison indicates that the radio technology is unlikely to produce a suitable cell (314-Figure 3; 414-Figure 4; column 2:lines 56-65; column 5:line 50-column 6:line 46), the step of switching to an alternative radio technology prior to the said final measurement in the series being taken and searching signals associated with the alternative radio technology to search for a suitable cell (abstract; column 4:lines 17-59; column 5:line 50-column 6:line 46).

Regarding claim 2, OTTING further discloses including the steps of searching on the alternative radio technology in the same manner as searching on an original radio technology (column 4:lines 17-59; column 5:line 50-column 6:line 46).

Regarding claim 9, see the rejections of the parent claim concerning the subject matter this claim is dependant upon. OTTING further discloses arranged for use in accordance with a dual mode, or multimode device (column 1:lines 14-30).

Regarding claim 10, OTTING discloses a cellular radio communications device arranged for operation on a plurality of radio technologies (abstract; column 4:lines 17-59) and including means for determining the most suitable cell based upon a characteristic of signals received from a plurality of cells and the signals from each cell being provided over a band frequencies (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), means for taking a series of measurements of the said characteristic

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for one radio technology for each frequency (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), and including means for, prior to the final measurement in the said series being taken, comparing the said characteristic of at least one measured signal for each frequency with a predetermined value and determining that (314-Figure 3; 414-Figure 4; column 2:lines 56-65; column 5:line 50-column 6:line 46), if the comparison indicates that the radio technology is unlikely to produce a suitable cell, initiating means for switching to an alternative radio technology prior to the said final measurement in the series (abstract; column 4:lines 17-59; column 5:line 50-column 6:line 46), and for searching signals associated with the alternative radio technology to search for a suitable cell (column 4:lines 17-59; column 5:line 50-column 6:line 46).

Regarding claim 11, OTTING discloses a method for operating a cellular radio communications device arranged for operation on a plurality of radio technologies (abstract; column 4:lines 17-59) and including means for determining the most suitable cell based upon a characteristic of signals received from a plurality of cells and the signals from each cell being provided over a band frequencies (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), means for taking a series of measurements of the said characteristic for one radio technology for each frequency (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), and including means for, prior to the final measurement in the said series being taken, comparing the said characteristic of at least one measured signal for each frequency with a predetermined value and determining that (314-Figure 3; 414-Figure 4; column 2:lines 56-65; column 5:line 50-column 6:line 46), if the comparison indicates that the radio technology is

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unlikely to produce a suitable cell, initiating means for switching to an alternative radio technology prior to the said final measurement in the series (abstract; column 4:lines 17-59; column 5:line 50-column 6:line 46), and for searching signals associated with the alternative radio technology to search for a suitable cell (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46),), comprising a method according to claim 1 or 2 (see the rejections of claims 1 and 2 regarding the subject matter regarding this claim).

Regarding claim 14, OTTING discloses a method of network acquisition for a cellular radio communications device arranged to operate on a plurality of radio access technologies (abstract; column 4:lines 17-59) and comprising determining the most suitable cell based on a characteristic of signals received from a plurality of cells (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), the signals from each cell being provided over a band of frequencies (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), and the method being arranged for taking a series of measurements of the said characteristic for one radio access technology and for each frequency (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), wherein after the first measurement in the said series, the said characteristic of at least one measured signal for each frequency is compared with a predetermined value and if the comparison indicates that the radio access technology is unlikely to produce a suitable cell (314-Figure 3; 414-Figure 4; column 2:lines 56-65; column 5:line 50-column 6:line 46), the step of switching to an alternative radio access technology prior to the said final measurement in the series being taken and searching signals associated with the

alternative radio access technology to search for a suitable cell (abstract; column 4:lines 17-59; column 5:line 50-column 6:line 46).

Regarding claim 15, OTTING discloses a cellular radio communications device arranged for operation on a plurality of radio access technologies (abstract; column 4:lines 17-59) and including means for determining the most suitable cell based upon a characteristic of signals received from a plurality of cells and the signals from each cell being provided over a band frequencies (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), means for taking a series of measurements of the said characteristic for one radio access technology for each frequency (314-Figure 3; 414-Figure 4; column 5:line 50-column 6:line 46), and including means for, after the first measurement in the said series being taken, comparing the said characteristic of at least one measured signal for each frequency with a predetermined value and determining that (314-Figure 3; 414-Figure 4; column 2:lines 56-65; column 5:line 50-column 6:line 46), if the comparison indicates that the radio access technology is unlikely to produce a suitable cell, initiating means for switching to an alternative radio access technology prior to the said final measurement in the series (abstract; column 4:lines 17-59; column 5:line 50-column 6:line 46), and for searching signals associated with the alternative radio access technology to search for a suitable cell (column 4:lines 17-59; column 5:line 50-column 6:line 46).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

5. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claims 3 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over OTTING et al (US 6,477,372 B1) in view of NAKANO (US 6,725,041).

Regarding claim 3, see the rejections of the parent claim (both) regarding the subject matter this claim is dependent upon. However, OTTING does not disclose wherein the characteristic of the received signals is compared with the predetermined value after the first measurement in the series of measurements to be taken so as to

obtain an average value. NAKANO discloses wherein the characteristic of the received signals is compared with the predetermined value after the first measurement in the series of measurements to be taken so as to obtain an average value (column 3:line 57-column 4:line 20). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify OTTING to include an averaging sequence for the signals received, as taught by NAKANO, as both systems relate to signal strength detection. This is beneficial in that a more accurate reading can be deduced when comparing measured signals over a predetermined time interval.

Regarding claim 8, see the rejections of the parent claim (both) regarding the subject matter this claim is dependent upon. OTTING further discloses including the steps of continuing measurements on a radio technology even if it is determined that no suitable cell is likely to be identified (410, 412, 414-Figure 4; column 3:line 45-column 4:line 16). However, OTTING does not disclose wherein the measurements are an averaging sequence. NAKANO discloses wherein the measurements are an averaging sequence (column 3:line 57-column 4:line 20). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify OTTING to include an averaging sequence for the signals received, as taught by NAKANO, as both systems relate to signal strength detection. This is beneficial in that a more accurate reading can be deduced when comparing measured signals over a predetermined time interval.

7. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over OTTING et al (US 6,477,372 B1) in view of DILLINGER et al (US 2004/0058679 A1).

Regarding claim 4, see the rejections of the parent claim (both) regarding the subject matter this claim is dependant upon. However, OTTING does not disclose wherein the said predetermined value is set in the cellular radio communications device. DILLINGER discloses wherein the said predetermined value is set in the cellular radio communications device (paragraph 51-54). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify OTTING to include the predetermined value to be set within the mobile device, as taught by DILLINGER, as this would allow the multimode phone to calculate measurements from the handset.

Regarding claim 5, see the rejections of the parent claim (both) regarding the subject matter this claim is dependant upon. However, OTTING does not disclose wherein the said predetermined value is set for each radio technology. DILLINGER discloses wherein the said predetermined value is set for each radio technology (paragraph 51-54). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify OTTING to include the predetermined value to be set for each radio technology, as taught by DILLINGER, as this would allow the multimode phone to calculate measurements from the handset.

8. Claims 6 and 7 rejected under 35 U.S.C. 103(a) as being unpatentable over OTTING et al (US 6,477,372 B1) in view of BRODY (US 4,670,899).

Regarding claim 6, see the rejections of the parent claim (both) regarding the subject matter this claim is dependent upon. However, OTTING does not disclose wherein the said characteristic of the signals comprises signal strength. BRODY

discloses wherein the said characteristic of the signals comprises signal strength (column 18:lines 1-12). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify OTTING to determine cell suitability based on a received signal strength, as taught by BRODY, as both systems relate to cell selection. This is beneficial in that higher quality connections can be achieved when cells are above a determined threshold.

Regarding claim 7, see the rejections of the parent claim (both) regarding the subject matter this claim is dependent upon. However, OTTING does not disclose wherein the said characteristic of the signals comprises a derivative of the signal strength. BRODY discloses wherein the said characteristic of the signals comprises a derivative of the signal strength ((column 19:lines 19-48). Therefore it would have been obvious to a person of ordinary skill in the art at the time the invention was made to modify OTTING to determine cell suitability based on a received signal strength, as taught by BRODY, as both systems relate to cell selection. This is beneficial in that higher quality connections can be achieved when cells are above a determined threshold.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

AMERGA et al (US 2004/0043798 A1) – Idle mode cell reacquisition and reselection

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ariel Balaoing whose telephone number is (571) 272-7317. The examiner can normally be reached on Monday-Friday from 8:00 AM to 4:30 AM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Trost can be reached on (571) 272-7872. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Ariel Balaoing
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AB


GEORGE ENG
SUPERVISORY PATENT EXAMINER